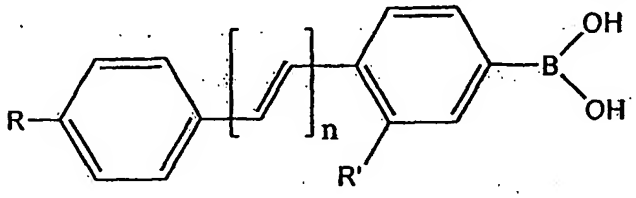
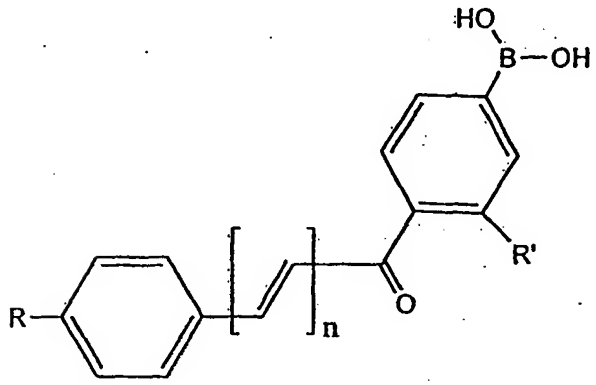
What is claimed is:

1. An ophthalmic sensor, comprising an ophthalmic device having a polymer matrix; and a molecular sensing moiety in and/or on said ophthalmic device, wherein the molecular sensing moiety interacts or reacts with sugar to provide an optical signal which is indicative of sugar level in an ocular fluid, wherein the molecular sensing moiety is or is derived from a compound having the structural formula (1) or (2)

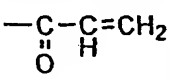
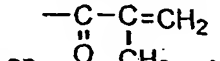


(1)



(2)

wherein R' is H or an olefinically unsaturated, crosslinkable radicals having up to 25 carbon atoms;

R is H, NR_1R_2, CN, OCH_3, or a radical constituent capable of donating an electron to or accepting an electron from adjacent aromatic system, wherein R_1 is H or C_1-C_6 alkyl while R_2 is a C_3-C_{25} radical terminated with  or  ;

and

n is an integer from1 to 5.

2. The ophthalmic sensor of claim 1, wherein the ophthalmic device is a contact lens, a corneal onlay or an implantable ophthalmic device.

3. The ophthalmic sensor of claim 1 or 2, wherein the polymer matrix is obtained by polymerization of a material forming the ophthalmic device.